ELECTIONS BC
A non-partisan Office of the Legislature

Quality Audit

Coverage and Currency of Federal and Provincial Voters Lists in British Columbia

2003

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1. Executive Summary

British Columbia has a highly mobile population and this presents special challenges for voter registration and keeping voters lists current. To better understand these challenges, Elections BC and Elections Canada undertook this study to measure the quality of the voters lists in terms of coverage and currency. Coverage is defined as the number of voters registered in relation to the total number of eligible voters. Currency is defined as the number of voters who are listed at the address where they currently reside.

The study indicated that merging the Elections BC voters list with Elections Canada's voters list for the province, into a combined list, creates the best overall quality for both agencies. However, provincial legislative amendments must be passed before British Columbia can obtain access to the Elections Canada voters list data and pursue an integrated approach to voter registration. For the province, use of a combined list would be very significant, creating registrations for some 700,000 additional voters.

For Elections Canada, which already has much higher coverage, adopting a combined list provides an additional 250,000 voters, including recent registrants. By December 31, 2003, Elections Canada estimates that through use of a combined list as well as ongoing list improvement activities, they will achieve coverage nearing 95% with a net overall currency of approximately 73%.

Quality of the Voters Lists	B.C. Voters List March 2003		EC Voters List March 2003		Combined List March 2003		Combined List December 2003	
	# of voters (million)	%	# of voters (million)	%	# of voters (million)	%	# of voters (million)	%
Number of eligible voters in B.C.	2.98		2.98		2.98		2.98	
Coverage	2.11	71	2.57	86	2.77	93	2.82	95
Currency	1.57	53	1.84	62[1]	1.94	65	2.17	73
Currency within the Voters Lists[2]	1.57	74	1.84	72	1.94	70	2.17	77

[1] The study was conducted just prior to Elections Canada's annual update with the income tax data, which improved the currency by 6.1%.

[2] Numbers of voters at their correct address divided by the number of voters on the voters list.

Substantial variations in quality of the voters lists were observed among electoral districts, and among different age and mobility groups. These variations indicated that it would be more effective to target registration to each of these special groups rather than use the blanket approach of a province-wide enumeration.

It is probable that a federal general election will be held in 2004, with a provincial general election legislated for May 2005. Elections Canada already has a number of planned activities for improving voter registration leading up to and during the federal election period. These activities include special outreach programs for youth, and targeted revision during the election. Similarly, Elections BC is developing strategies to reach B.C. voters. Sharing common goals, Elections BC and Elections Canada should give strong consideration to more closely coordinate their activities, to improve voters list quality and to minimize the response burden on the electorate.

Clearly, to offer the best possible service, a voter who registers provincially should automatically be registered federally, and vice versa. Further, the agencies agree that sharing voters list updates would result in more effective maintenance, yield cost savings and, most importantly, generate voters list quality improvements needed to deliver a high level of service to the voters of British Columbia.

Provided provincial legislation is passed to enable access to federal voter registration data, significant benefits to the electorate from a combined list can be realized, not only by Elections BC, but also by Elections Canada.

2. Description of the Project

2.1 Purpose

The purpose of the study was to evaluate the quality of the Elections BC (EBC) voters list and the Elections Canada (EC) voters list for British Columbia. The objectives of the study were to identify any issues related to quality (coverage and currency) that may exist with the Elections BC and Elections Canada voters lists, and to determine appropriate solutions for these issues. These solutions included examining the possibility of synchronizing data from the two agencies to build a combined list. The findings were also intended to enable the Chief Electoral Officer (CEO) for British Columbia to make recommendations to the Legislature regarding the need for or the advisability of a province-wide general enumeration in 2004.

2.2 Background

Elections BC's Voters List

Elections BC has used a continuous voters list for several decades and until recently, it was the only continuous list in Canada. In the 1990s, a number of other jurisdictions in Canada moved to a continuously maintained or permanent list. This move has been driven by a number of factors, including difficulties in recruiting enumerators, lifestyle changes making enumeration less effective, and the substantial cost of conducting a general enumeration. The existence of continuous lists means they can be used for other electoral purposes, such as supporting municipal elections and, in British Columbia, in supporting the operation of recall and initiative events.

Elections BC implemented a computerized voters list system in the early 1980s. This system went through many refinements over the years until 2002, when it was replaced by the Electoral Information System (EIS), referred to in this report as the EBC voters list. In 1995, an electronic Motor/Voter program was implemented using driver licence records to update voters' addresses. This program resulted in a substantial increase in the currency of the voters list. However, while the Motor/Voter program has been extremely useful, it has not been enough to maintain the currency of the voters list as not all drivers who move update their licence records promptly. Another factor is that, although the Motor/Voter program links some 82% of British Columbia voters who are on the Elections BC voters list to their driver licence records, the only means of updating the voter records of the remaining voters (18%) is by obtaining information directly from the voter.

Elections BC's early involvement in the provincial government's Multiple Address Change system has resulted in approximately 3,000 address updates per month, but whether this is net new data or mainly copies of the updates that are also received via the Motor/Voter program, has not yet been determined.

Elections Canada's Voters List

Elections Canada studied the feasibility of a continuous voters list in 1995 and 1996, resulting in the release of the report, "The Register of Electors Project: A Report on Research and Feasibility", in March 1996. The report established a national target for the quality of voter data, based on Elections Canada's experience in 1993 when final lists of electors from the 1992 referendum were used as preliminary lists of voters in the federal election. Because 20% of the voter information changed over that year, the target for quality at the national level was expressed as having an 80% reliability. This target is equivalent to 92% coverage, with correct addresses for 77% of all registered voters.

The report recommended using data from Revenue Canada (now Canada Customs and Revenue Agency or CCRA), Citizenship and Immigration Canada (CIC), together with provincial and territorial driver's licence records and vital statistics files, to maintain a continuous national voters list. In late 1996, amendments to the *Canada Elections Act* authorized the establishment of the National Register of Electors (NROE), referred to as the Elections Canada voters list in this study, and limited its use to electoral purposes.

Since the 1997 election, Elections Canada has maintained the federal voters list for British Columbia using drivers licence data, vital statistics records, the Elections BC voters list, income tax data, citizenship and immigration records, and revisions from electoral events.

The list can also be shared with other electoral authorities for electoral uses.

Enumerations

For many years, Elections BC conducted general enumerations in British Columbia through door-to-door interviews. In May 1999, to reduce costs, Elections BC used a postal enumeration. A full door-to-door enumeration would have cost approximately $14 million, while the 1999 postal enumeration cost was $4.5 million. The postal enumeration resulted in many confirmations and updates, but produced far fewer new voter registrations than were anticipated.

In 2002, British Columbia adopted fixed dates for general elections every four years. The next general election is scheduled for May 17, 2005. Clearly, the fixed election date enables Elections BC to select the best time for conducting an enumeration or a targeted voter registration campaign. In a province where at least 16% of the electorate moves every year, particularly during the summer, it would be more effective to focus enumeration or targeted registration in early 2005, rather than in May 2004 as legislated in the current B.C. *Election Act* (1995).

Federally, before the creation of the Elections Canada permanent voters list, preliminary lists of voters for federal elections were usually built through a post-Writ door-to-door enumeration. The report of the 1991 Royal Commission on Electoral Reform and Party Financing noted problems in finding sufficient numbers of enumerators and the challenges enumerators faced in trying to obtain a response at the door.

Enumeration was used for the 1992 referendum in all provinces except Quebec, where the referendum was administered provincially. The data from this enumeration was used in 1993 to build a preliminary list of voters for the 1993 federal general election. (A separate enumeration was necessary in Quebec.)

The final complete federal enumeration was conducted door-to-door in April 1997. For the 1997 and subsequent general elections, preliminary lists of voters were constructed using data from the National Register of Electors. The 2000 general election included targeted door-to-door revision. Revising agents visited some 4% of dwellings in areas where the Register was most likely to be out-of-date. The revising agents completed new registrations at 37% of the addresses visited, confirming that targeted revision can be used effectively to improve the quality of voters lists.

2.3 Project Scope

This study focused on measuring the quality of the Elections BC and Elections Canada voters lists in terms of their coverage, currency, and accuracy as of March 1, 2003, and in determining the quality which could be achieved in a combined voters list.

Coverage (or completeness) of the voters lists was measured at the provincial level, at the provincial electoral district (PED) level, and at the federal electoral district (FED) level. It was measured by comparing the number of voters on the lists to the population of eligible voters (British Columbia residents 18 years of age and over, who are Canadian citizens). The populations of eligible voters were estimated from the 2001 Census with adjustment for change by BC Statistics to reflect the estimated population at the provincial level as at March 1, 2003.

Currency of the voters lists was measured at the provincial level, then statistically estimated at provincial electoral district and federal electoral district levels. Currency was measured by taking a total sample of 4,000 voters, who were randomly selected from sub-sets of voters from the Elections BC and Elections Canada voters lists. The voters were asked to verify whether their information from the voters list was correct and current. The assessment of currency was based on whether the listed address was their current address.

The voters lists were also examined for accuracy. The measure of accuracy is the correctness of registration information (for example, names are spelled correctly, the right birth dates are recorded, postal codes are included). Accuracy was measured by asking the respondents to verify the correctness of the information. The responses indicated that, although there were some minor spelling or keying errors, only rarely did these impede correct identification of the voter, and thus accuracy was not further examined in this study.

3. Approach

The study was divided into three main steps.

3.1 Matching the Elections BC and Elections Canada Voters Lists

The study matched and then compared the two voters lists to determine the number of British Columbia voters common to both lists, the degree of similarity and the number of British Columbia voters unique to each list.

The Elections BC voters list which was used for matching included 2,113,079 active voters. The Elections Canada voters list had 2,570,049 active voters for British Columbia.

Elections Canada had identified 334,246 people, whose citizenship was not known, as potential federal voters. This data was drawn from provincial drivers licence files or from CCRA (income tax) data. Of those "unconfirmed voters", 56,735 were found on the Elections BC voters list (confirming that they were Canadian citizens) and therefore eligible voters. These were included in the 2,570,049 active voters on the Elections Canada voters list for British Columbia.

The match results were used to form six strata or sets for the survey sample selection process.

Set	Description	Voter Counts
6.	Voters found on both lists at the same address	1,706,693
5.	Voters found on both lists but at different addresses	205,981
4.	EC voters, on EBC's list at one time but no longer on the EBC list	97,669
3.	EC voters never found on the EBC list	559,706
2.	EBC voters at one time but no longer on the EC list in B.C.	79,055
1.	EBC voters never found on the EC list in B.C.	121,351
	Total	2,770,455

The available information for each record included surname and given names, gender, date of birth, residential address, and mailing address.

3.2 Comparison of Elections BC and Elections Canada Voters Lists to the 2001 Census

The study compared the numbers of voters on the Elections BC and the Elections Canada voters lists with the number of eligible voters from the 2001 Census, with adjustment for growth to reflect the estimated number of eligible voters on March 1, 2003. This comparison was carried out for both the Elections BC and the Election Canada voters lists, with analysis of coverage for the province as a whole, and for individual provincial and federal electoral districts. Coverage by age groups was also examined.

3.3 Statistical Survey

Based on the information from the initial comparison and organization of the data into sets, the study surveyed a stratified, random sample of 4,000 voters. The survey sought to confirm the voter's names (spelling), gender, date of birth, citizenship, current address, and length of time at the current residential and mailing addresses.

The survey included:

- a mail-out questionnaire (see Fig. 1, sample letter on following page)
- a follow-up telephone questionnaire for non-respondents
- door-to-door follow-up interviews with the second-round non-respondents
- registered letters to non-respondents who were not included in the door-to-door interviews because they lived in remote localities.

3.3.1 Design of the Sample

A pilot study survey conducted by phone determined that there would be significantly different degrees of quality in the different sets. As a result, a stratified, random sample was used to improve efficiency. This sample is expected to yield estimates at the provincial level within 1.7% or better of the true value, 95% of the time.

3.3.2 Data Collection

A multi-phase method of data collection was employed, using mail to reach the largest number of respondents quickly and inexpensively. Follow-up of non-respondents was carried out by phone, and finally with door-to-door interviewers and registered mail for hard to reach places. This sequence of operation minimized the number of people who did not respond to the survey, while controlling costs. Questionnaires that were deemed undeliverable by Canada Post were classified as voters who were not listed at their current address.

A sample of the letter is shown in Fig. 1 below. The questions asked in subsequent stages of the survey were identical.

Fig. 1

4. Findings

4.1 Introduction

The survey received good cooperation from the public. Responses from individuals, coupled with the mail returned by Canada Post as undeliverable, enabled the study to determine the currency of the information for some 92% of the 4,000 records.

4.2 Elections BC's Voters List

Elections BC's voters list included 2.1 million of the 2.98 million eligible voters in B.C. with 1.6 million listed at the correct address, as illustrated in Fig. A.

Elections BC Voters List Coverage and Currency
(of the 2.98 million eligible voters)

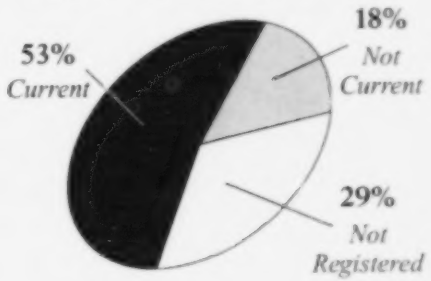


Fig. A

4.2.1 Coverage

Elections BC's voters list had 2.1 million voters or 71% of the province's 2.98 million eligible voters.

There was significant variation in coverage between electoral districts, as illustrated in the following map and in Appendix A. The best coverage is obtained in the provincial electoral districts of Oak Bay-Gordon Head (88.6%), Delta South (88.4%), and Saanich North and the Islands (88.2%). The poorest coverage occurred in Vancouver-Mount Pleasant (61.5%), Richmond Centre (64.1%), and Surrey-Whalley (64.9%) (see map 'Fig. 2 - EBC Cov' on following page).

As well, coverage varied amongst age groups. It is evident in the following table that coverage is weakest amongst youth, particularly those 18-24 years old, and improves with older voter age groups.

Table: Distribution of Registered Voters by Age Group on the EBC Voters List

		18 - 24	25 - 34	35 - 44	45+	Total
Census Projected	Mar 2003	341,017	491,196	636,863	1,510,924	2,980,000
EBC	Mar 2003	71,777	262,138	431,531	1,347,633	2,113,079
EBC%	Mar 2003	21%	53%	68%	89%	71%

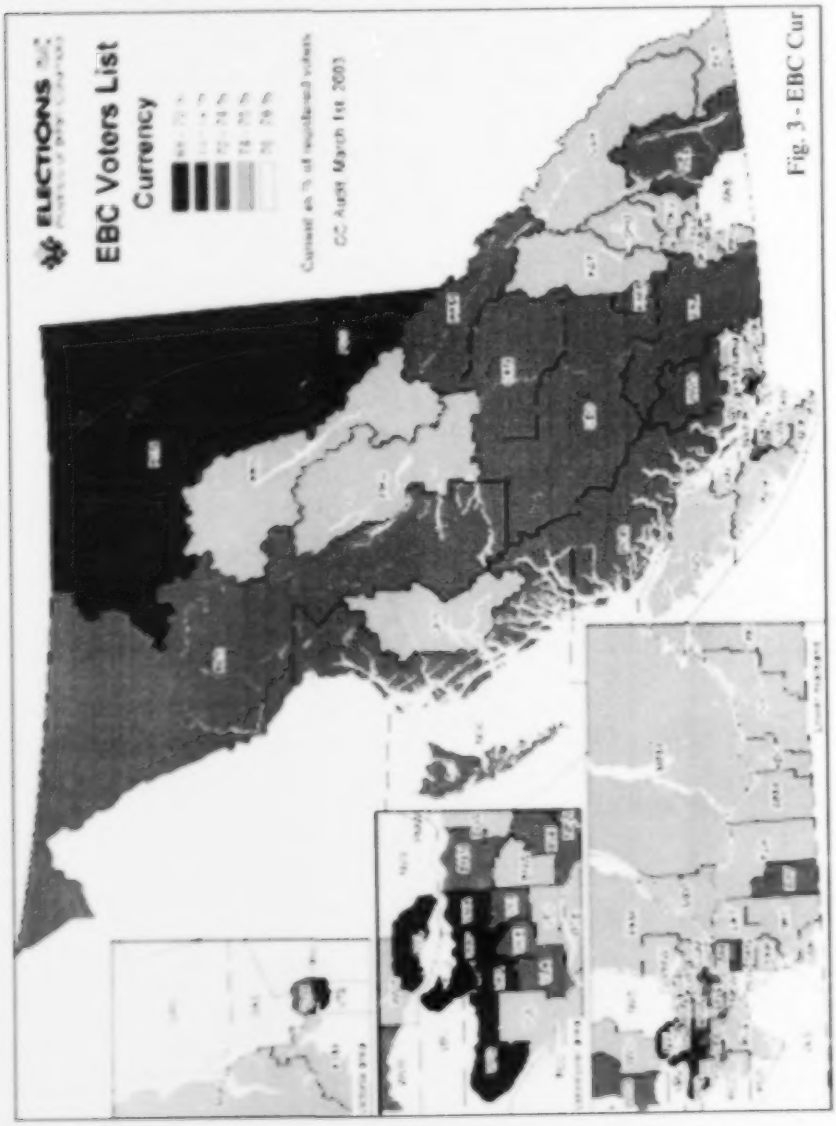
ELECTIONS BC

ELECTIONS BC
Province of British Columbia
EBC Voters List
Coverage
CC Audit March 1st 2003

Fig. 2 - EBC Cov

4.2.2 Currency

The survey indicated that 74% of the records in the Elections BC voters list (1.6 million voters) were current. However, because the Elections BC voters list covers only 71% of eligible voters, the current records on file are only 53% of all eligible voters. As with coverage, currency was not uniform across age groups and electoral districts. The data indicated that areas with a greater proportion of older voters, and areas with lower mobility rates, tend to have a greater proportion of voters listed at their current address (see map 'Fig. 3- EBC Cur' below).



4.2.3 Mobility

Both coverage and currency appear closely related to mobility. The map shown below, 'Fig. 4 - EBC Mob' draws from the 2001 Census.

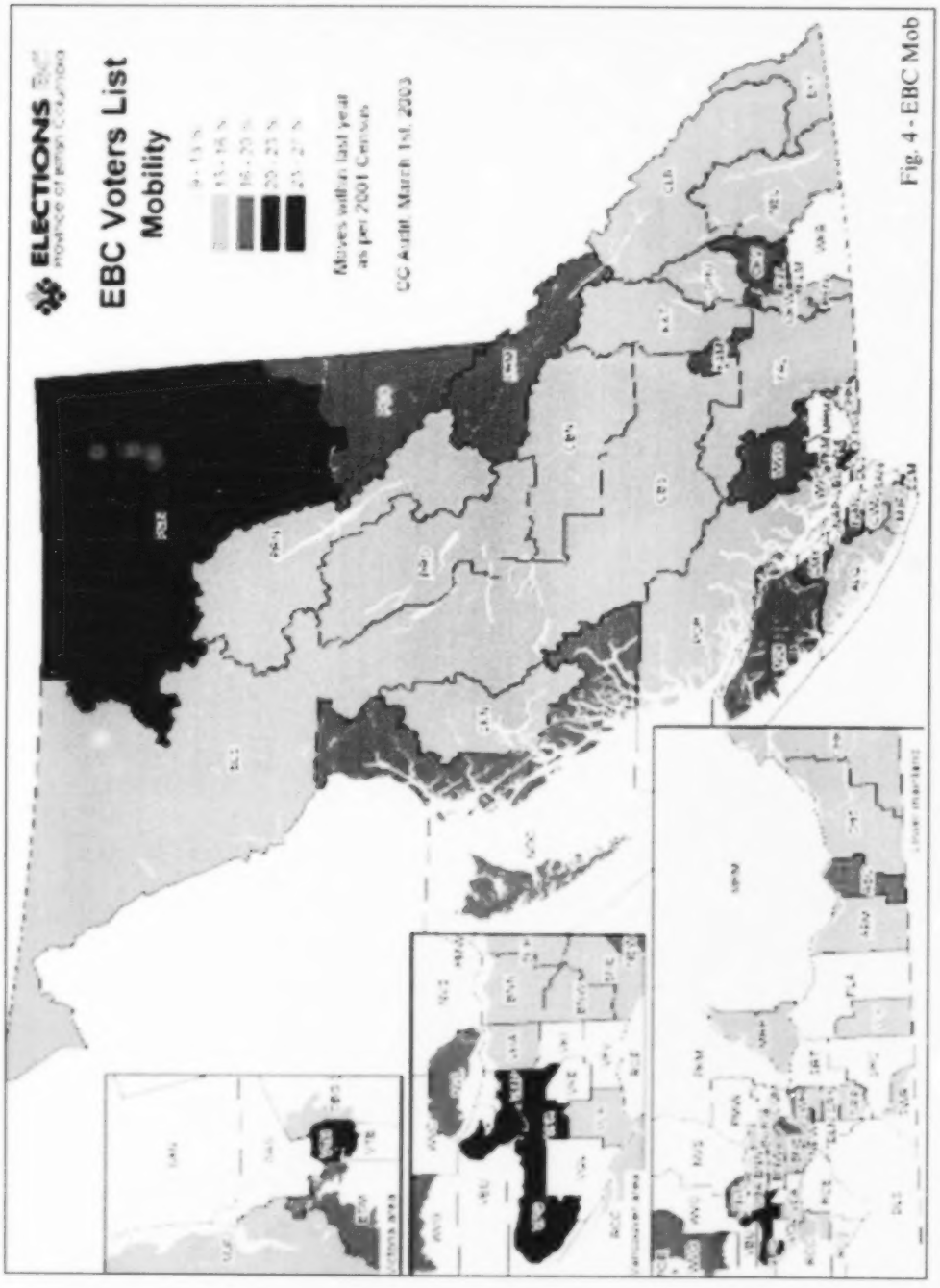


Fig. 4 - EBC Mob

4.3 Elections Canada's Voters List

Elections Canada's voters list included 2.6 million of the 2.98 million eligible voters in B.C., with 62% at the correct address, as illustrated in Fig. B.

4.3.1 Coverage

Election Canada's voters list covered 86% or 2.6 million of British Columbia's 2.98 million eligible voters on March 1, 2003. Coverage has since risen to 87.5% following the update with income tax data in June 2003, based on preliminary measurements. By December 31, 2003, the Elections Canada voters list alone is expected to improve to a coverage of 89.5%. Federal adoption of a combined list however, will increase coverage to 94.7% or approximately 2.8 million eligible voters.

Elections Canada's Voters List
Coverage and Currency
(of the 2.98 million eligible voters)

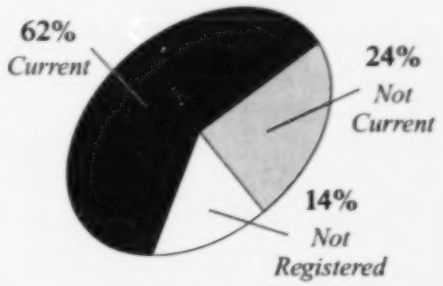


Fig. B

Similar to the Elections BC voters list, there was significant variation in coverage between electoral districts (Appendix A). Elections Canada achieves the best coverage in the federal electoral districts of Victoria, Saanich-Gulf Islands and Vancouver-Quadra. In contrast, the districts of Vancouver Kingsway, Surrey Central and Richmond had the lowest coverage. Generally, the better-covered districts also appeared to be more current (see map 'Fig. 5 - EC Cov' on following page).

Better coverage was found amongst older segments of the population, and poorer coverage amongst youth (see table below).

Table: Distribution of Registered Voters by Age Group on the EC Voters List

		18 - 24	25 - 34	35 - 44	45+	Total
Census	Projected Mar 2003	341,017	491,196	636,863	1,510,924	2,980,000
EC	Mar 2003	136,619	411,663	535,391	1,486,377	2,570,050
EC%	Mar 2003	40%	84%	84%	98%	86%

Fig. 5 - EC Cov

4.3.2 Currency

The survey indicated that 62% of Elections Canada's voters list records for British Columbia, representing 1.8 million voters, were current as of March 1, 2003, in relation to the 2.98 million eligible voters. It should be noted that the study examined records, shortly before the annual update with Canada Customs and Revenue Agency (CCRA) data. Since March 1st, updates from CCRA tax returns have increased the currency of Elections Canada's list by 6.1% to 68.1% of eligible voters in the province. This is expected to rise further to 70.1% following the planned Fall 2003 mail-out to some tax filers to confirm their eligibility as potential voters.

Sub-provincially, it appeared that the areas with better coverage also had better currency in terms of voters being listed at their correct address (see map 'Fig. 6 - EC Cur' on following page).

Fig. 6 - EC Cur

4.3.3 Mobility

As with the data presented for Elections BC, the coverage and currency for the Elections Canada voters list appear closely related to mobility. The map shown below ('Fig. 7 - EC Mob') draws from the 2001 Census.

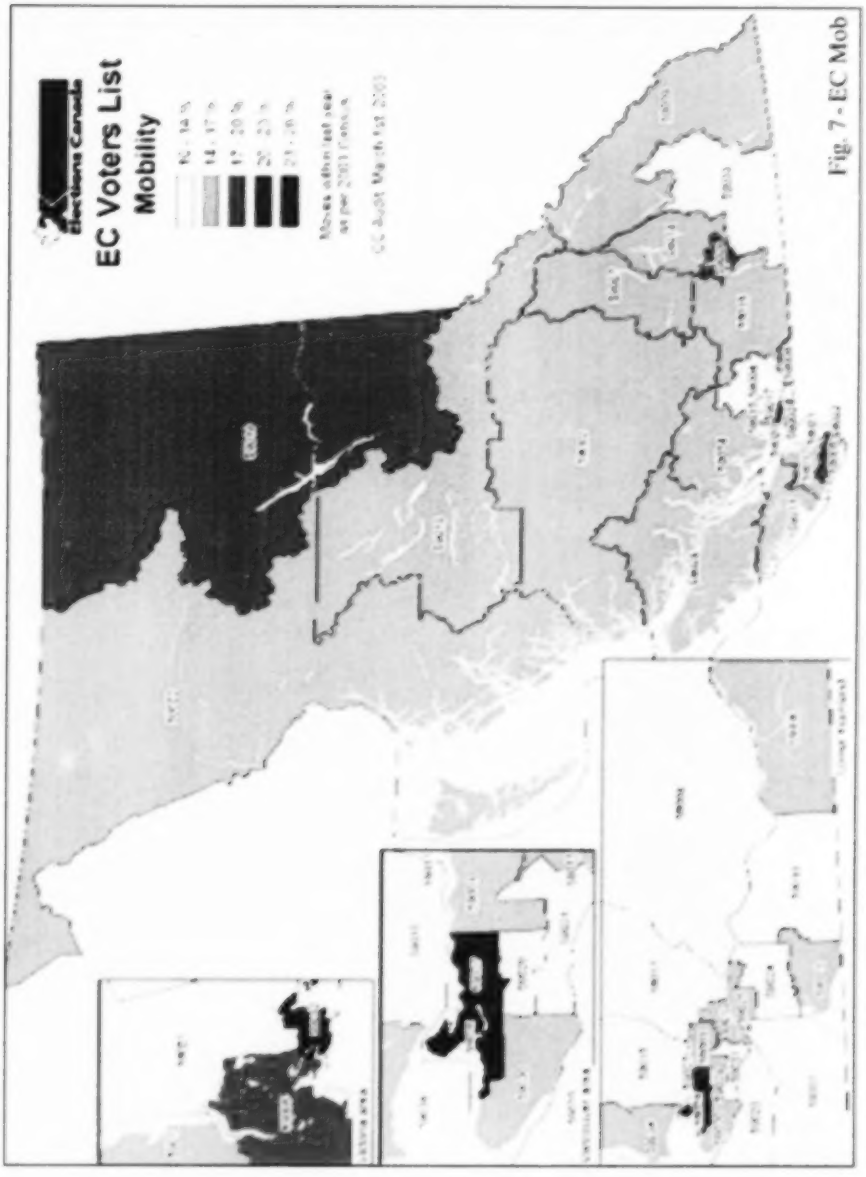


Fig. 7 - EC Mob

4.4 Combined List

Quality of the Voters Lists	EBC Voters List		EC Voters List		Combined List March 03		Combined List December 03	
	# of voters (million)	%	# of voters (million)	%	# of voters (million)	%	# of voters (million)	%
Number of eligible voters in B.C.	2.98		2.98		2.98		2.98	
Coverage	2.11	71	2.57	86	2.77	93	2.82	95
Currency	1.57	53	1.84	62[3]	1.94	65	2.17	73
Currency within the Voters Lists	1.57	74	1.84	72	1.94	70	2.17	77

4.4.1 Coverage

By merging Elections BC's and Elections Canada's voters lists, 93%, or 2.77 million of the 2.98 million eligible voters in B.C. would be on a combined list, as of March 1, 2003. Coverage of a combined list is expected to rise to 94.7% by December 31, 2003 when updates from the income tax data and results of the mail-out to some tax filers and youth are fully incorporated into the Elections Canada voters list. See Fig. C. below:

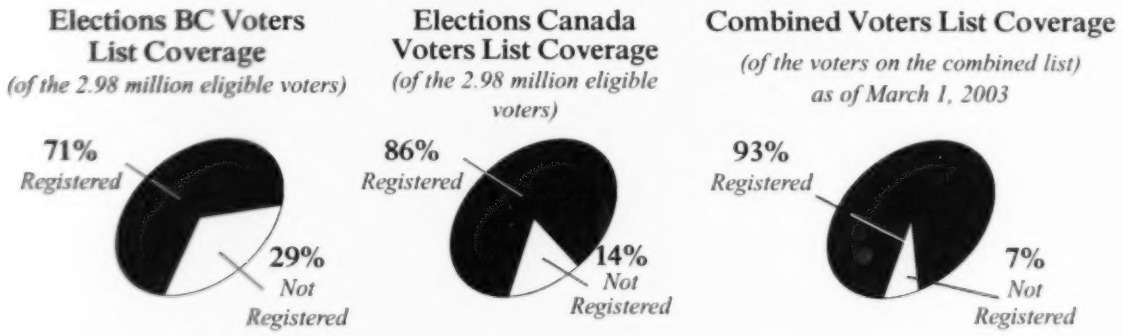


Fig. C

[3] *The study was conducted just prior to Elections Canada's annual update with the income tax data which typically increases currency of the data by at least 6%.*

It is estimated that the cost of combining the lists and attaining this high level of coverage would be relatively modest compared to other strategies. However, for Elections BC there is the matter of amending B.C. legislation to remove the requirement that the B.C. voters list be used for certain non-electoral purposes. This legislative change is necessary because the *Canada Elections Act* restricts use of the Elections Canada voters list to electoral purposes only. In addition, legislative changes to enable Elections BC to add voters to the provincial voters list – without their signature – would also be desirable to facilitate adding eligible voters directly from the federal list. See Fig. D below for the coverage and currency of a combined list.

As noted previously, there were significant differences in coverage from district to district, and amongst different age groups. These differences in quality, observed independently in the Elections BC and Elections Canada voters lists, were also carried over to the combined list.

Combined Voters List
Coverage and Currency
(of the 2.98 million eligible voters)
as of March 1, 2003

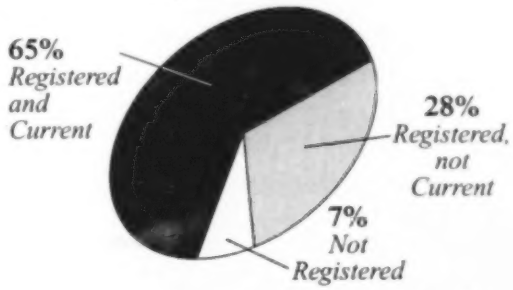


Fig. D

As a result, youth remain substantially under-covered; coverage improves with an increase in the age of the voter group. More in-depth demographic analysis was not carried out in this study due to the limited time available, and the limits of the data. In view of the differential coverage, further studies may be warranted to enable development of targeted registration approaches for these particular populations.

4.4.2 Currency

Analysis of the currency of the voters lists, as illustrated in the graphs on the following page, indicated that the combined list would have an estimated 1.94 million voters listed at their correct address, representing 65.1% of all eligible voters in B.C. The combined list would inherit the quality characteristics of the individual lists, with better coverage and currency amongst the older voters and in areas of lower mobility. With the updates from Elections Canada's June CCRA update and the mail-out to selected tax filers and youth, it is expected that currency of a combined list would increase to 72.7% by December 31, 2003.

On examination of the currency of information on each voters list, the Elections BC voters list had a greater proportion of current records (74% of 2.11 million registered voters) than the Elections Canada voters list (72% of 2.57 million registered voters). However, it should be noted that the study was conducted just before the annual CCRA update of Elections Canada's voters list, which typically results in a currency improvement of at least 6%.

The survey indicated that the quality of the voter records that appeared on both lists was more reliable; the records of voters who appeared on only one of the lists were more prone to error. See Fig. E.

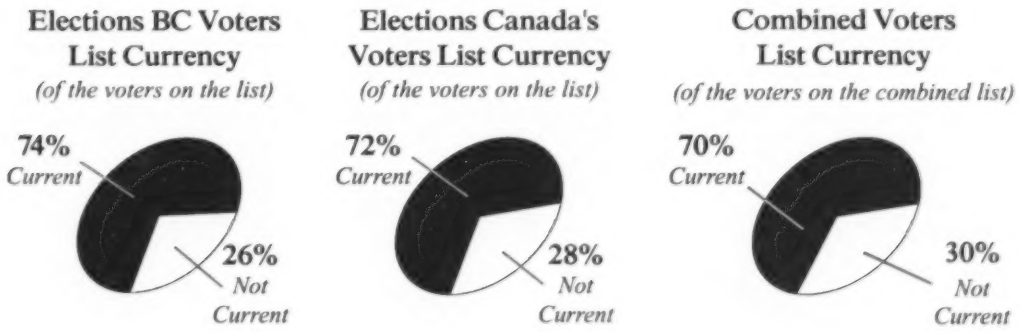

Elections BC Voters List Currency
(of the voters on the list)
74% Current
26% Not Current
Elections Canada's Voters List Currency
(of the voters on the list)
72% Current
28% Not Current
Combined Voters List Currency
(of the voters on the combined list)
70% Current
30% Not Current

Fig. E

Analysis of the table on the following page, "Voters - Verification (%) by Set", shows that the combined list has 1.7 million voters who as at March 1, 2003, belonged to both the Elections BC and Elections Canada voters lists. This set of records were shown to have voters listed at the correct address 79.2% of the time, which increased to 83.7%, representing 1.4 million voters, after adjustment for non-response. Voters who were on both the Elections BC and Elections Canada lists, but at different addresses, were listed at the correct address only 50% of the time, increasing to 56% after adjustment for non-response.

Voters - Verification (%) by Set: Elections BC and Elections Canada Voters Lists, 2003

	Set/Stratum					
	1 - on EBC, never on EC	2 - on EBC, once on EC in B.C.	3 - on EC never on EBC	4 - on EC, once on EBC	5 - on both but at different addresses	6 - on both and at same address
Elections BC						
Current	34.3	26.5	-	-	26.7	79.2
Not Current	52.3	65.5	-	-	52.7	15.4
Missing/inconclusive	13.3	8	-	-	20.7	5.4
Total	100	100	-	-	100	100
Population	121,351	79,055	-	-	205,981	1,706,693
Elections Canada						
Current	-	-	43.6	40.5	30.7	78.9
Not Current	-	-	43.8	50	48	14.6
Missing/inconclusive	-	-	12.7	9.5	21.3	6.5
Total	-	-	100	100	100	100
Population	-	-	559,706	97,669	205,981	1,706,693
Combined						
Current	34.3	26.5	43.6	40.5	50	79.2
Not Current	52.3	65.5	43.8	50	40	15.4
Missing/inconclusive	13.3	8	12.7	9.5	10	5.4
Total	100	100	100	100	100	100
Population	121,351	79,055	559,706	97,669	205,981	1,706,693

We have noted that the Elections BC list includes the coverage of sets 1, 2, 5 and 6; the Elections Canada list covers sets 3, 4, 5 and 6; and the combined list represents all 6 sets.

Not surprisingly, the highest rate of currency is observed in set 6, where the names of voters were matched at the same address on both Elections BC and Elections Canada voters lists. However, the same cannot be said for set 5, where the eligible voters were found on both voters lists, but at different addresses. In set 5, the combined voters list has the highest currency rate (50%; 56% after non-response adjustment), followed by the Elections Canada voters list (31%; 39% after non-response adjustment) and the Elections BC voters list (27%; 34% after non-response adjustment). In view of the low level of reliability of this information, verification of the information with an independent data source or by writing to the voter or address should be considered.

In the other sets, 1 to 4, which have the eligible voters appearing on only one of the lists, the voters were listed at the correct address in 50% of the cases at best, and 28.8% of the cases, at worst (after non-response adjustment). These low levels of currency would indicate that the information for voters which appear only on one of the voters lists should be verified, either by confirmation against an independent data source or by writing to the voter. Paradoxically, this finding of low currency provides valuable information to both agencies to enable targeting of their verification and revision efforts.

5. Conclusions and Recommendations

Combining the Elections BC voters list and the Elections Canada voters list would provide the best overall quality for both agencies. At March 1, 2003, such a combined list would have included 2.77 million voters, or 93% of the eligible voters in British Columbia. It would have listed an estimated 1.94 million voters, 65% of the eligible voters, at the correct address. With the incorporation of updates from the Spring 2003 income tax data, and updates from the Elections Canada Fall mail-out to some tax-filers, the quality of the combined list is expected to reach a coverage of 94.7%, and a net currency of 72.7%, by December 31, 2003. The assistance of Elections BC in helping Elections Canada to identify additional households and eligible voters to add to the mail-out should result in further improvements.

The study indicated that a subset of the voter records on a combined list, that are not currently on both separate lists at the same address, would benefit from verification by confirmation with an independent data source, such as telephone directories, or writing to the address to seek confirmation of the voter information. Elections Canada and Elections BC are collaborating on analysis of these records to better understand their characteristics. This will enable the agencies to better target efforts to confirm the information on these eligible voters.

The existing quality of the voters lists varied from area to area and amongst different age and mobility groups, with significant under-coverage amongst youth. These variations indicate that targeted strategies to improve registration of eligible voters in each of these special populations will be more effective than a blanket approach of a province-wide enumeration.

Elections BC and Elections Canada may be able to benefit from the discussions with other provincial electoral agencies which have or are undertaking targeted registration activities as part of their election preparations. Such discussion would enable the agencies to identify best practices, and the most cost effective means of registering voters in these special voter groups. In addition, further studies into some of the issues and opportunities identified through this study should be considered in order to gain a more in-depth understanding and enable the use of more refined, and more efficient, targeting strategies for registering voters in these particular populations.

In terms of timing, it is likely that a federal general election will be held in 2004. This will be followed by the provincial general election in May 2005. Elections Canada's plans already have a number of activities for improving voter registration in the coming period. These activities include special mail-outs to youth and other voter groups. Similarly, Elections BC is developing strategies to communicate with B.C. voters. Clearly, close coordination of activities between Elections BC and Elections Canada can help to maximize the returns to both agencies and minimize the response burden on the electorate.

Elections BC and Elections Canada agree that combining the voters lists would offer significant improvements in coverage, and potential savings in maintenance costs in the longer term. Ideally, a voter who registered provincially would be registered automatically federally, and vice versa.

From Elections BC's perspective, one of the key impediments standing in the way of gaining access to Elections Canada's data is the current provincial legislation authorizing the use of data on British Columbia voters lists for non-electoral purposes. Since the *Canada Elections Act* does not permit the federal voters list to be used for non-electoral purposes, Elections BC is constrained in planning any use of Elections Canada voters list data to improve the coverage of the provincial voters list. As such, Elections BC may wish to hold discussions with the appropriate authorities to explore legislative change so as to remove provincial legislative impediments.

Legislative changes would allow Elections BC to dramatically increase the coverage and currency of its voters list and provide greater service to the citizens of British Columbia. In the shorter term, Elections BC is taking steps to work with Elections Canada to share non-personal data such as addresses, geographical information and expertise in an effort to improve the quality of both lists.

Appendix A - Statistics for Federal and Provincial Electoral Districts

The coverage of each provincial electoral district, as well as the average age of the voters and the 1-year mobility rate in the district, is shown below. Currency is within the voters list, not as a percentage of eligible voters.

No.	Provincial Electoral District	Coverage	Estimated currency of list	% moved within last year	Average age of voters
1	Abbotsford-Clayburn	75.3%	75.2%	17.1%	46.8
2	Abbotsford-Mount Lehman	72.6%	74.4%	15.9%	45.5
3	Alberni-Clayoquot	82.9%	75.9%	13.7%	49.7
4	Bulkley Valley-Stikine	78.9%	73.3%	14.4%	43.0
5	Burnaby-Edmonds	71.0%	74.0%	14.0%	44.3
6	Burnaby North	72.1%	73.9%	13.2%	45.2
7	Burnaby-Willingdon	70.0%	74.9%	13.8%	47.6
8	Burquitlam	72.6%	74.7%	13.9%	44.5
9	Cariboo North	76.5%	73.9%	13.6%	44.5
10	Cariboo South	78.6%	73.0%	14.3%	47.1
11	Chilliwack-Kent	75.4%	75.5%	15.1%	47.2
12	Chilliwack-Sumas	78.6%	75.3%	14.9%	46.8
13	Columbia River-Revelstoke	76.6%	75.1%	14.3%	46.4
14	Comox Valley	85.3%	74.9%	16.1%	48.6
15	Coquitlam-Maillardville	78.7%	75.8%	11.9%	44.8
16	Cowichan-Ladysmith	80.5%	75.1%	14.3%	48.9
17	Delta North	78.7%	76.1%	11.2%	43.6
18	Delta South	88.4%	76.4%	10.0%	48.3
19	East Kootenay	79.3%	74.1%	15.8%	46.0
20	Esquimalt-Metchosin	79.2%	74.6%	18.9%	46.1
21	Fort Langley-Aldergrove	80.5%	74.6%	11.2%	45.5
22	Kamloops	77.5%	73.8%	19.1%	45.2
23	Kamloops-North Thompson	81.0%	75.0%	14.1%	46.6
24	Kelowna-Lake Country	76.6%	74.4%	18.0%	47.3
25	Kelowna-Mission	79.9%	74.0%	18.2%	49.4
26	Langley	77.0%	73.1%	14.7%	46.0
27	Malahat-Juan de Fuca	81.4%	75.9%	13.8%	46.8
28	Maple Ridge-Mission	81.2%	75.4%	12.7%	44.6
29	Maple Ridge-Pitt Meadows	77.7%	75.7%	13.4%	45.2
30	Nanaimo	78.3%	73.4%	18.1%	47.2
31	Nanaimo-Parksville	85.6%	75.7%	15.1%	50.8
32	Nelson-Creston	82.8%	73.2%	14.2%	48.9
33	New Westminster	72.9%	73.2%	18.5%	45.9
34	North Coast	77.4%	72.4%	18.2%	43.2
35	North Island	80.0%	75.2%	16.5%	45.0

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36	North Vancouver-Lonsdale	74.3%	70.3%	17.0%	45.4
37	North Vancouver-Seymour	86.1%	76.5%	10.3%	45.6
38	Oak Bay-Gordon Head	88.6%	76.3%	14.3%	50.9
39	Okanagan-Vernon	79.7%	74.6%	17.0%	49.0
40	Okanagan-Westside	80.6%	75.8%	14.0%	50.6
41	Peace River North	66.5%	70.9%	23.1%	40.5
42	Peace River South	71.5%	71.6%	18.3%	44.1
43	Penticton-Okanagan Valley	79.9%	74.9%	15.1%	53.2
44	Port Coquitlam-Burke Mountain	76.8%	75.5%	12.8%	42.7
45	Port Moody-Westwood	75.9%	75.3%	12.4%	43.4
46	Powelll River-Sunshine Coast	87.3%	74.0%	14.0%	50.3
47	Prince George-Mount Robson	74.7%	72.9%	19.6%	44.2
48	Prince George North	78.3%	74.8%	15.0%	41.9
49	Prince George-Omineca	81.2%	74.7%	15.3%	42.1
50	Richmond Centre	64.1%	74.1%	13.1%	46.3
51	Richmond East	68.4%	74.9%	11.0%	44.5
52	Richmond-Steveston	79.9%	76.1%	9.7%	46.2
53	Saanich North and the Islands	88.2%	76.2%	12.5%	52.4
54	Saanich South	84.6%	76.5%	12.6%	47.9
55	Shuswap	81.6%	74.6%	13.4%	50.2
56	Skeena	78.6%	74.7%	14.3%	43.2
57	Surrey-Cloverdale	81.9%	75.6%	12.7%	46.4
58	Surrey-Green Timbers	65.4%	73.5%	14.1%	44.2
59	Surrey-Newton	67.3%	73.7%	14.6%	42.7
60	Surrey-Panorama Ridge	72.5%	74.3%	13.4%	43.4
61	Surrey-Tynehead	70.1%	75.4%	11.8%	43.6
62	Surrey-Whalley	64.9%	73.0%	17.7%	43.2
63	Surrey-White Rock	86.6%	76.0%	13.4%	53.1
64	Vancouver-Burrard	69.4%	68.8%	26.2%	42.7
65	Vancouver-Fairview	77.4%	70.4%	24.5%	42.0
66	Vancouver-Fraserview	69.9%	74.2%	10.1%	45.6
67	Vancouver-Hastings	65.9%	71.7%	14.6%	44.5
68	Vancouver-Kensington	68.7%	72.8%	12.5%	45.0
69	Vancouver-Kingsway	66.0%	73.5%	12.5%	45.0
70	Vancouver-Langara	70.5%	73.3%	13.3%	46.4
71	Vancouver-Mount Pleasant	61.5%	68.4%	23.1%	45.1
72	Vancouver-Point Grey	77.4%	70.8%	23.3%	42.4
73	Vancouver-Quilchena	77.8%	75.4%	12.7%	47.6
74	Victoria-Beacon Hill	84.2%	71.5%	25.8%	47.9
75	Victoria-Hillside	74.9%	72.3%	22.7%	45.0
76	West Kootenay-Boundary	80.7%	76.2%	12.5%	48.7
77	West Vancouver-Capilano	81.3%	75.9%	10.8%	51.0
78	West Vancouver-Garibaldi	79.9%	73.6%	18.3%	45.2
79	Yale-Lillooet	80.5%	73.7%	14.9%	49.1

It was not possible to include the institutional population in the calculation of the coverage and average age figures shown in the table. On average, coverage figures adjusted to include the institutional population would be about 1.2% lower and the adjusted average ages would be about 0.3 years older. While there would be larger or smaller differences for some electoral districts, adjustments to include the institutional population should not change the overall picture suggested by the table.

The coverage by federal electoral districts is shown in the following table. Currency is within the voters list, not as a percentage of eligible voters.

No.	Provincial Electoral District	Coverage	Estimated currency of list	% moved within last year	Average age of voters
59001	Burnaby – Douglas	87.4%	70.6%	13.9%	46.2
59002	Cariboo – Chilcotin	89.5%	72.1%	14.2%	46.2
59003	Delta - South Richmond	94.9%	73.6%	10.5%	46.4
59004	Dewdney – Alouette	91.7%	72.5%	13.3%	45.5
59005	Esquimalt - Juan de Fuca	92.8%	72.7%	16.7%	46.5
59006	Fraser Valley	93.0%	71.9%	15.7%	47.3
59007	Kamloops, Thompson and Highland Valleys	94.2%	72.3%	16.5%	46.6
59008	Kelowna	95.0%	71.7%	17.4%	48.8
59009	Kootenay - Columbia	90.9%	72.8%	14.6%	47.4
59010	Langley - Abbotsford	89.4%	72.5%	13.2%	46.2
59011	Nanaimo - Alberni	94.0%	74.2%	14.6%	50.5
59012	Nanaimo - Cowichan	90.9%	72.8%	15.2%	48.8
59013	New Westminster - Coquitlam - Burnaby	89.0%	70.6%	16.4%	45.3
59014	Okanagan - Shuswap	91.7%	73.0%	15.3%	50.0
59015	North Vancouver	90.9%	73.0%	12.7%	46.6
59016	Okanagan - Coquihalla	94.0%	72.6%	15.4%	51.5
59017	Port Moody - Coquitlam - Port Coquitlam	92.1%	71.9%	12.0%	44.0
59018	Prince George - Bulkley Valley	90.4%	72.5%	16.3%	43.4
59019	Prince George - Peace River	88.6%	70.4%	19.1%	43.0
59020	Richmond	84.5%	69.8%	11.6%	46.1
59021	Saanich - Gulf Islands	97.4%	74.3%	13.2%	50.7
59022	Skeena	92.9%	72.0%	15.9%	43.7
59023	South Surrey - White Rock - Langley	93.1%	73.3%	14.5%	50.5
59024	Surrey Central	85.6%	70.7%	12.8%	44.0
59025	Surrey North	86.8%	68.8%	15.6%	44.2
59026	Vancouver Centre	89.7%	68.2%	25.8%	42.8
59027	Vancouver East	85.6%	67.2%	20.0%	44.9
59028	Vancouver Island North	92.6%	73.4%	16.3%	47.3
59029	Vancouver Kingsway	81.3%	69.4%	12.6%	45.4
59030	Vancouver Quadra	95.1%	70.8%	14.5%	46.8
59031	Vancouver South - Burnaby	87.7%	70.1%	11.7%	46.3
59032	Victoria	102.1%	71.3%	23.3%	48.2
59033	Kootenay - Boundary - Okanagan	90.6%	74.2%	13.2%	50.0
59034	West Vancouver - Sunshine Coast	92.6%	73.0%	15.5%	49.1

Appendix B – Project Organization Details

Roles and Responsibilities

Project Sponsors:

- Harry Neufeld, Chief Electoral Officer of British Columbia
- Rennie Molnar, Director Register and Geography, Elections Canada

Project Team:

- Bob Williams, Director of Information Technology, Elections BC, overall management of the project and compilation of the study report
- David Lazarz, Senior Systems Analyst, Elections BC, coordination and execution of data matching and data preparation activities carried out by Elections BC
- Lee Herrin, Manager Surveys and Analysis, BC Stats, design and statistics on eligible voter populations
- Dr. Zheng Wu, Professor, University of Victoria, under contract to BC Stats, responsible for Data Analysis
- Diane Barrand, Director, Pangaea Systems Inc., under contract to Elections BC to assist Bob Williams in the day to day management of the project
- John Armstrong, Chief Methodologist, Elections Canada, responsible for management of the EC methodologists
- Peter Hoyt, Sr. Methodologist, Elections Canada, responsible for survey design and data analysis
- Larry Li, Associate Director (acting) of Register and Geography Partnerships, Elections Canada, managing and coordinating Elections Canada's support to the project
- Clayton Block, Sr. Methodologist, Elections Canada, computerized voters list data matching.

Appendix C - References and Contacts

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